



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,355	01/17/2002	Hai Chi Nguy	Q01-1029-US1	7101

32093 7590 10/06/2004
HANSRA PATENT SERVICES
4525 GLEN MEADOWS PLACE
BELLINGHAM, WA 98226

EXAMINER

FIGUEROA, NATALIA

ART UNIT PAPER NUMBER

2651

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,355

Applicant(s)

NGUY ET AL.

Examiner

Natalia Figueroa

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 26-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-13, 16, 17-21, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 4-6, 14, 15, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Maddox (USPN 3,895,270).

Regarding claim 9, Maddox discloses demagnetizing a magnetic data disk for recording data in a disk drive (col. 3, lines 42-46), comprising (a) placing the magnetic data disk in a magnetic field at a first strength level (col. 3, line 63-col. 4, line 4); (b) gradually reducing the magnetic field to a second strength level to essentially eliminate net magnetization in the magnetic media (col. 4, lines 44-53).

Regarding claim 1, Maddox is relied upon for the same reasons of rejection as stated above. Claim 1 has limitations similar to those treated in the above rejections, and is met by the reference as discussed above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7-8, 10, 16, 18-19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox in view of Tamura et al (USPN 6,570,727), hereinafter Tamura.

Regarding claim 10, Maddox is relied upon for the same reasons of rejection as stated above. Maddox further discloses providing electrical power to the electromagnets to generate said magnetic field at said first level (fig. 1 and col. 5, lines 4-20). Maddox fails to explicitly teach that the data disk includes opposing surfaces having magnetic medium thereon; placing an electromagnet proximate each surface of the data disk, such that at least a portion of each surface of the data disk is between the electromagnets; and rotating the data disk in relation to the electromagnets such that the magnetic field is substantially perpendicular to said surfaces of the data disk.

However, Tamura discloses such opposing surfaces ... (fig.1), placing an electromagnet ... (col. 3, lines 40-63) and rotating the data disk ... (col. 4, lines 3-6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed by Maddox with the above teachings from Tamura in order to place an

Art Unit: 2651

electromagnet supplied with a controlled current hence making sure that all the data in the disk has been erased.

Regarding claim 16, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Tamura further discloses that the magnetic field is substantially perpendicular to the surface of the magnetic media (col. 4, lines 3-6).

Regarding claims 7-8, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Claims 7-8 have limitations similar to those treated in the above rejections, and is met by the references as discussed above.

Regarding claim 18, apparatus claim 18 is drawn to the apparatus corresponding to the method of using same as claimed in claims 9 and 10. Therefore apparatus claim 18 corresponds to method claims 9 and 10, and is rejected for the same reasons of obviousness as used above.

Regarding claims 19 and 24, apparatus claims 19 and 24 are drawn to the apparatus corresponding to the method of using same as claimed in claims 10 and 16. Therefore apparatus claims 19 and 24 correspond to method claims 10 and 16, and are rejected for the same reasons of obviousness as used above.

6. Claims 2-3, 11-12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox in view of Saito et al (USPN 6,747,823), hereinafter Saito.

Regarding claim 11, Maddox is relied upon for the same reasons of rejection as stated above. Maddox fails to explicitly teach reducing the magnetic field by multiple stepwise decrements in the magnetic field to reach the second level. However, Saito discloses such on (abstract and col. 7, line 62-col. 8, line 70). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed

Art Unit: 2651

by Maddox with the above teachings from Saito in order to control the magnetic field hence making sure that the disk has been completely erased.

Regarding claim 12, Maddox and Saito are relied upon for the same reasons of rejection as stated above. Saito further discloses that said stepwise decrements are separated by predetermined time periods (or gradual time col. 7, line 62-col. 8, line 70 and col. 9, lines 5-9).

Regarding claim 13, Maddox and Saito are relied upon for the same reasons of rejection as stated above. Saito further discloses that the duration of each time period is based on the speed of rotation of the data disk (col. 10, lines 47-50).

Regarding claims 2-3, Maddox is relied upon for the same reasons of rejection as stated above. Claims 2-3 have limitations similar to those treated in the above rejections, and are met by the references as discussed above.

7. Claims 17, 20-21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maddox and Tamura and further in view of Saito.

Regarding claim 17, Maddox and Tamura are relied upon for the same reasons of rejection as stated above. Maddox and Tamura fail to explicitly teach that the step (a) further includes the steps of moving the electromagnets essentially radially in relation to the rotating data disk to expose recording area on the disk surfaces to said magnetic field (col. 10, lines 18-30).

However, Saito discloses such on (col. 10, lines 18-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus as disclosed by Maddox and Tamura with the above teachings from Saito in order to

control the magnetic field hence making sure that once the disk has been completely erased it can start been recorded on.

Regarding claims 20-21, apparatus claims 20-21 are drawn to the apparatus corresponding to the method of using same as claimed in claims 11-12. Therefore apparatus claims 20-21 correspond to method claims 11-12, and are rejected for the same reasons of obviousness as used above.

Regarding claim 25, apparatus claim 25 is drawn to the apparatus corresponding to the method of using same as claimed in claim 17. Therefore apparatus claim 25 corresponds to method claims 17 and is rejected for the same reasons of obviousness as used above.

Allowable Subject Matter

8. Claims 4-6, 14-15, 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4-5, 15 and 23: The prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the magnitude of each decrement is based on the magnetic coercivity of the magnetic media.

Regarding claim 6: The prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the second strength level is substantially zero.

Regarding claims 14 and 22: The prior art of record, and in particular Maddox (USPN 3,895,270), fails to teach or suggest that the duration of each time period is at least longer than duration of a revolution of the data disk.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art with respect to media preconditioning:

- a) Serizawa (USPN 6,594,099): Discloses apparatus for erasing data on a disk.
- b) Von Stein (USPN 5,132,860): Discloses a media erasure system.
- c) Kanemoto (JP 07-029106): Discloses a magnetic disk erasing apparatus.
- d) Yasuda (JP 59-229704): Discloses an eraser for magnetic disk.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (703) 305-1260. The examiner can normally be reached on Monday - Thursday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NFM


SINH TRAN
PRIMARY EXAMINER